Abstract

The invention comprises a geophysical sensor apparatus for use under water in the sea, comprising a plurality of seismic sensors (1) for sensing seismic waves associated with underground formations, and a plurality of EM-sensors constituted preferably by electrodes (4) for sensing electromagnetic waves associated with said underground formations. In a preferred receiver cable configuration embodiment of the invention, the geophysical sensor apparatus comprises a seismic receiver cable with a linear array of a plurality of seismic sensors (1) and EM-sensors arranged inside a flexible outer skin (25), with said EM-sensors having electrodes on the outside of said outer skin. The cable is operated on the seafloor by a surface vessel, said vessel towing an electromagnetic transmitter antenna in addition to the seismic source.